Manitoba
Agriculture

# 1990
# Field Crop Variety Recommendations for Manitoba

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# 1990
# VARIETY RECOMMENDATIONS FOR MANITOBA

**FIELD CROP VARIETY RECOMMENDATIONS FOR MANITOBA**
**Prepared by**
**Manitoba Agriculture in cooperation with Agricultural Research Personnel in Industry, University of Manitoba and Agriculture Canada.**

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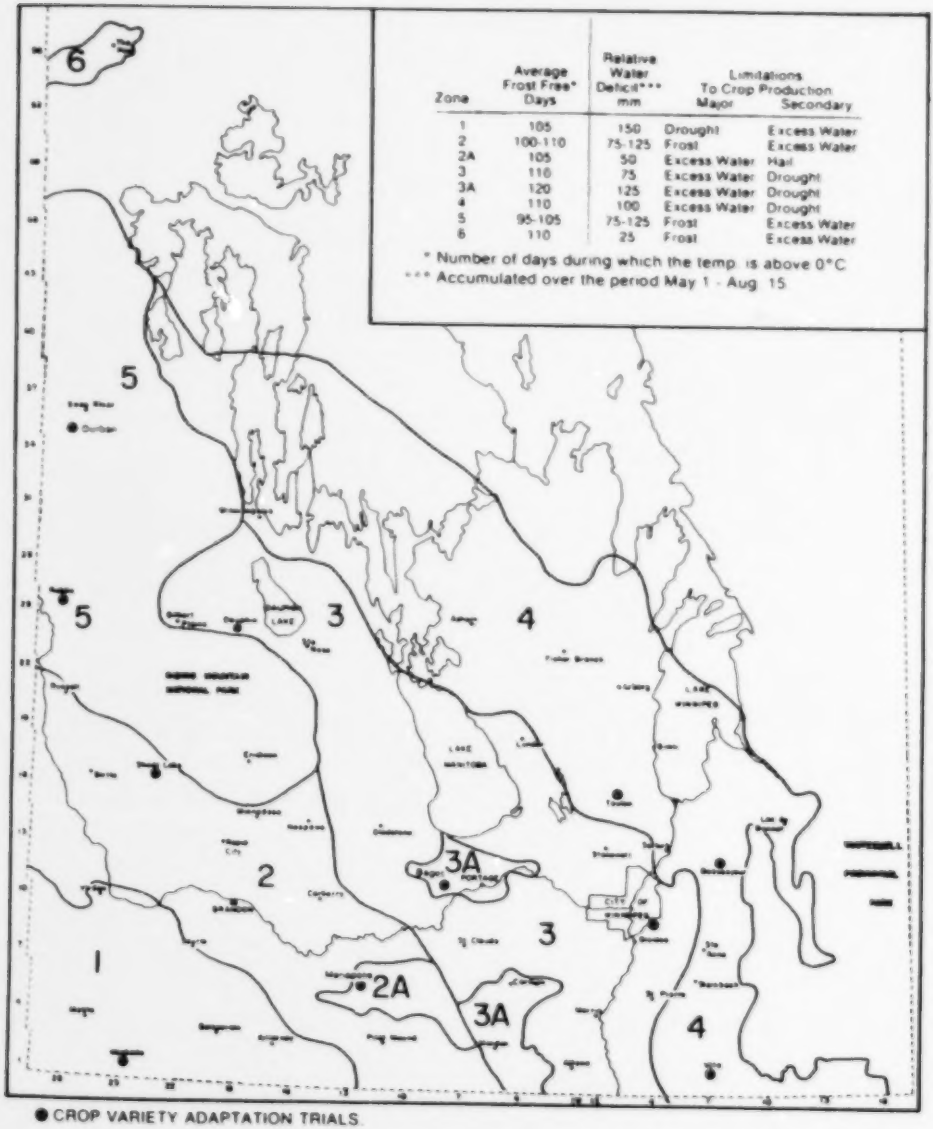
# CROP INSURANCE

Except for grain corn, safflower, spring rye and forage crops, all varieties recommended in this publication are insurable under the Canada-Manitoba Crop Insurance Program. For information on the insurability of varieties not recommended in this publication, please contact your nearest Crop Insurance office.

# USE OF GOOD SEED

Always use good, preferably pedigreed, seed of a recommended variety. Pedigreed seed is produced under the rules and regulations of the Canadian Seed Growers' Association. It has varietal purity, and must meet the high level of quality and cleanliness required in pedigreed seed grades. In field trials, Certified seed has consistently outyielded seed derived from non-pedigreed sources.

# CROP VARIETY ZONE MAP FOR MANITOBA




| Zone | Average Frost Free* Days | Relative Water Deficit*** mm | Limitations To Crop Production Major | Secondary |
|---|---|---|---|---|
| 1 | 105 | 150 | Drought | Excess Water |
| 2 | 100-110 | 75-125 | Frost | Excess Water |
| 2A | 105 | 50 | Excess Water | Hail |
| 3 | 110 | 75 | Excess Water | Drought |
| 3A | 120 | 125 | Excess Water | Drought |
| 4 | 110 | 100 | Excess Water | Drought |
| 5 | 95-105 | 75-125 | Frost | Excess Water |
| 6 | 110 | 25 | Frost | Excess Water |

* Number of days during which the temp. is above 0°C

*** Accumulated over the period May 1 - Aug. 15

● CROP VARIETY ADAPTATION TRIALS

# CEREAL CROPS

# BARLEY

## • Recommended Varieties

**For Malting or Feed**

Argyle — all zones — 6-row, blue aleurone
Bonanza — all zones — 6-row, blue aleurone
Conquest — all zones — 6-row, blue aleurone
Ellice — all zones — 2-row, yellow aleurone

**For Feed (yellow aleurone)**

Bedford — all zones — 6-row
Brier — all zones — 6-row *See Comments*
Deuce — all zones — 2-row
Duke (semi-dwarf) — all zones — 6-row
Heartland — all zones — 6-row
Leduc — zones 1 & 2 — 6-row *See Comments*
Tupper (hulless) — all zones — 6-row *See Comments*
Virden — all zones — 6-row

***Comments***

- **Leduc**: Not recommended for areas where lodging is a serious problem.
- **Brier:** A new six row feed variety with high test weight and high yield potential. Not recommended for areas where lodging is a serious problem. Certified seed will not be available in 1990. Brier was developed at the Crop Development Centre, University of Saskatchewan. Seed distribution is through SeCan.
- **Tupper:** Stem rust may be a problem in heavy infestation. However, this variety is the only hulless barley adapted to Manitoba conditions. NOT recommended for areas where lodging is a serious problem.

**N.B.** Harrington is susceptible to stem rust. Therefore, it is NOT recommended for production in Manitoba.

## • Barley Variety Descriptions

| Variety | Yield as % of Bonanza* | Years Tested | Days to Maturity | Height | | Bulk Density | | Resistance to: | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | cm | (in) | kg/m³ | (lb/bu) | Lodging | Stem Rust | Loose Smut | Surface Borne Smuts | Root Rot | Net Blotch |
| Argyle | 101 | 5 | 88 | 100 | (40) | 563 | (43.7) | Fair | Good | Poor | Poor | Good | Fair |
| Bonanza | 100 | 5 | 85 | 95 | (38) | 590 | (45.8) | Fair | Good | Poor | Poor | Good | Fair |
| Conquest | 96 | 4 | 84 | 102 | (41) | 587 | (45.6) | Fair | Good | Poor | Fair | Fair | Fair |
| Ellice | 95 | 5 | 87 | 86 | (35) | 617 | (47.9) | Fair | Good | Poor | Poor | Fair | Fair |
| Bedford | 108 | 5 | 89 | 84 | (34) | 640 | (49.7) | Good | Good | Poor | Fair | Good | Fair |
| Brier | 118 | 1 | 88 | 85 | (34) | 629 | (48.9) | Fair | Good | Poor | Good | Poor | Good |
| Deuce | 99 | 4 | 88 | 83 | (33) | 661 | (51.3) | Good | Good | Poor | Good | Good | Poor |
| Duke (semi-dwarf) | 105 | 3 | 90 | 79 | (31) | 577 | (44.8) | Excel | Good | Poor | Fair | Good | Fair |
| Heartland | 109 | 5 | 88 | 81 | (32) | 588 | (45.7) | Good | Good | Poor | Fair | Good | Good |
| Leduc | 110 | 5 | 86 | 86 | (35) | 580 | (45.1) | Poor | Good | Fair | Good | Fair | Fair |
| Tupper | 89 | 5 | 86 | 87 | (35) | 599 | (46.5) | Fair | Fair | Fair | Poor | Good | Poor |
| Virden | 116 | 4 | 90 | 89 | (36) | 595 | (46.2) | Excel | Good | Poor | Fair | Good | Fair |

*Average yield of Bonanza: 5 yr. = 4156 kg/ha (62.9 bu/ac)*

## • Yields by Crop Variety Zone (per cent)

| Variety | Years Tested | Zone | | | | |
|---|---|---|---|---|---|---|
| | | 1 & 2* | 3 | 4 | 5 | 6** |
| Argyle | 5 | 100 | 102 | 103 | 101 | 98 |
| Bonanza* | 5 | 100 | 100 | 100 | 100 | 100 |
| Conquest | 4 | 94 | 97 | 97 | 92 | 105 |
| Ellice | 5 | 96 | 94 | 93 | 89 | 113 |
| Bedford | 5 | 106 | 110 | 112 | 100 | 111 |
| Brier | 1 | 125 | 110 | 125 | 108 | 129 |
| Deuce | 4 | 101 | 98 | 100 | 92 | 107 |
| Duke (semi-dwarf) | 3 | 103 | 104 | 109 | 105 | 108 |
| Heartland | 5 | 110 | 106 | 109 | 103 | 129 |
| Leduc | 5 | 111 | 109 | 108 | 104 | 110 |
| Tupper | 5 | 87 | 88 | 90 | 84 | 105 |
| Virden | 4 | 118 | 113 | 116 | 112 | 128 |
| Yield of Bonanza | kg/ha | 4692 | 4298 | 3656 | 4334 | 2861 |
| | bu/ac | 91.4 | 83.7 | 71.2 | 84.4 | 55.7 |

*Zone 1 & 2 data combined due to insufficient test sites in zone 1.*
**No data available for 1987 in this zone.*

# OATS

## • Recommended Varieties

**For Milling or Feed**
Dumont — all zones
Fidler — all zones
Riel — all zones
Robert — all zones

***Comments***

Although all oat varieties recommended for Manitoba are acceptable as milling oats, the high protein varieties, Riel and Robert, are preferred.

Robert is a new tan hull coloured variety which yields well. Compared to Dumont, Robert has better lodging resistance, is 2-3 days earlier, has a lower per cent hull and a higher per cent protein. It is the first oat variety combining Barley Yellow Dwarf Virus tolerance with resistance to stem rust, crown rust and smut. Seed supplies will be available from SeCan members.

The oat variety Derby, developed by the Crop Science Development Center in Saskatoon, is NOT recommended for Manitoba because of its stem rust, leaf rust and smut susceptibility.

The oat variety Fidler may be removed from the recommended list in 1992.

## • Oats Variety Descriptions

| Variety | Yield as % of Dumont* | Years Tested | Days to Maturity | Height cm | Height (in) | (%) Hull | Hull Color | Test Weight kg/m³ | Test Weight (lb/bu) | Resistance to Lodging | Stem Rust | Leaf Rust | Smut | BYDV* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dumont | 100** | 5 | 97 | 97 | (38) | 23.9 | white | 491 | (39.4) | Fair | Good | Good | Good | Poor |
| Fidler | 97 | 5 | 93 | 93 | (37) | 24.9 | white | 470 | (37.7) | Good | Good | Good | Good | Poor |
| Riel | 99 | 5 | 97 | 99 | (39) | 21.5 | L. tan | 499 | (40.0) | Good | Good | Good | Good | Poor |
| Robert | 105 | 5 | 95 | 95 | (37) | 22.8 | tan | 481 | (38.6) | Good | Good | Good | Good | Fair |

**BYDV = Barley Yellow Dwarf Virus - a viral disease carried and spread by aphids.*

***Average yield: 4145 kg/ha (109 bu/ac) in Manitoba trials (1985-89).*

## • Yields by Crop Variety Zone (as per cent)

| Variety | Years Tested | Zone 1 | 2 | 3 | 4 | 5 | 6* |
|---|---|---|---|---|---|---|---|
| Dumont* | 5 | 100 | 100 | 100 | 100 | 100 | 100 |
| Fidler | 5 | 99 | 94 | 95 | 96 | 101 | 108 |
| Riel | 5 | 102 | 96 | 98 | 103 | 101 | 98 |
| Robert | 5 | 112 | 100 | 105 | 105 | 104 | 109 |
| Yield of Dumont (kg/ha) | | 3320 | 4600 | 3900 | 4240 | 4790 | 3470 |
| (bu/ac) | | 87 | 121 | 102 | 111 | 126 | 91 |

**Based on 4 years of testing.*

# RYE

## • Recommended Varieties

**Fall Rye**

Musketeer — all zones

Prima — all zones

**Spring Rye**

Gazelle — all zones

## • Rye Variety Descriptions

| | Yield as % of Musketeer* | Years Tested | Order of Maturity | Winter Survival | Resistance to: | | |
|---|---|---|---|---|---|---|---|
| | | | | | Lodging | Shattering | Ergot |
| ***Variety (fall)*** | | | | | | | |
| Musketeer | 100 | 5 | 1 | Very good | Good | Good | Poor |
| Prima | 107 | 4 | 2 | Very good | Fair | Good | Poor |
| ***Variety (spring)*** | | | | | | | |
| Gazelle | ** | 5 | — | — | Fair | Good | Poor |

*Average yield of Musketeer 3701 kg/ha (59 bu/acre) in 14 Manitoba trials (1985-1989)*
**On average spring rye yields are 70% of fall rye yields.*

# TRITICALE

## *Recommended Varieties

Carman—all zones
Frank—all zones
Wapiti—all zones

Frank (T59) is a new variety developed at the Agriculture Canada Research Station, Swift Current. Frank out-yields Carman and is slightly shorter than Carman and Wapiti. Limited quantities of Certified seed will be available from SeCan members in 1990.

Triticale is used in Canada both as a food and livestock feed. Seed yield is generally higher than Glenlea wheat but protein content is slightly lower. Wapiti also shows potential for silage production.

## • Triticale Variety Descriptions

| Variety | Yield as % of Carman* | Years Tested | Days to Maturity** | (cm) | (in) | Resistance to: | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Lodging | Stem Rust | Leaf Rust | Bunt |
| Carman | 100 | 4 | 103 | 105 | (41.3) | Good | Good | Good | Good |
| Frank | 110 | 2 | 102 | 99 | (39.0) | Good | Good | Good | Good |
| Wapiti | 115 | 4 | 102 | 103 | (40.6) | Good | Good | Good | Good |

*Average yield of Carman 3388 kg/ha (50 bu/ac) in 10 Manitoba trials conducted in 1985, 1987-89.*
**Days to maturity and height are based on Zone 3 and 3A data only.*

# DURUM WHEAT

## • Recommended varieties

Arcola — all zones
Kyle — zone 1 only
Medora — all zones
Sceptre — all zones

See Comments

### *Comments*

- **Kyle:** Developed at Agriculture Canada Research Station, Swift Current. It has shown a yield advantage in the drier zones of Manitoba, and has resistance to the rusts and bunt. However, it is later maturing, taller, and more susceptible and therefore NOT recommended for HIGHER MOISTURE AREAS.

## •Durum Wheat Variety Descriptions

| Variety | Yield as % of Medora* | Years Tested | Days to Maturity | Seed Size | Height | Resistance to: Lodging | Stem Rust | Leaf Rust | Loose Smut | Bunt |
|---|---|---|---|---|---|---|---|---|---|---|
| Arcola | 97 | 5 | 100 | Large+ | Medium | Fair | Good | Good | Fair | Good |
| Kyle | 105** | 2 | 103 | Large | Medium+ | Fair | Good | Good | Fair | Good |
| Medora | 100 | 5 | 101 | Large | Medium | Good | Good | Good | Fair | Good |
| Sceptre | 102 | 5 | 101 | Large | Medium- | Good | Good | Good | Fair | Good |

*Average Medora yield 3369 kg/ha (50 bu/ac) in Manitoba trials (1985-89).*

**Relative yield of Kyle for Zone 1 only.*

## • Yields by Crop Variety Zone (as per cent)

| Variety | Years Tested | Zone 1 | 2 | 3 | 4 | 5* |
|---|---|---|---|---|---|---|
| Arcola | 5 | 100 | 99 | 97 | 93 | 100 |
| Kyle | 2 | 105 | — | — | — | — |
| Medora | 5 | 100 | 100 | 100 | 100 | 100 |
| Sceptre | 5 | 100 | 105 | 104 | 92 | 104 |
| Yield of Medora (kg/ha) | | 3081 | 3481 | 3516 | 3271 | 2999 |
| (bu/ac) | | 46 | 52 | 53 | 49 | 45 |

*Four years data only (1985-88).*

# WHEAT

## • Recommended Varieties

**Eligible for Canada Western Red Spring grades**

| | |
|---|---|
| Benito — all zones | See Comments |
| Columbus — all zones | |
| Katepwa — all zones | See Comments |
| Kenyon — all zones | |
| Neepawa — all zones | See Comments |
| Roblin — all zones | See Comments |

**Eligible for Canada Prairie Spring (Red) grades**

| | |
|---|---|
| Biggar (HY368) — all zones | See Comments |
| Oslo (semi-dwarf) — all zones | |

**Eligible for Canada Utility grades**

Glenlea — all zones

***Comments***

- **Benito:** This variety may be removed from the recommended list in 1991.
- **Katepwa**: Has slightly more leaf rust resistance than Neepawa, but will also suffer yield losses in a leaf rust epidemic year.
- **Neepawa:** Is fairly susceptible to leaf rust and will suffer some yield loss in a year when leaf rust attacks early and severely. It may be removed from the recommended list for 1991.
- **Roblin:** Is shorter-strawed, earlier maturing, and higher in grain protein content than other recommended wheat varieties in its class.
- **Biggar (HY368):** A Canadian Prairie Spring wheat variety developed at Agriculture Canada Research Station Swift Current. It has harder kernels but is otherwise similar to HY 320. Seed supplies are available from SeCan members.
- **HY 320:** Will be deregistered August 1, 1990 and will only be eligible for feed grain after that time.

**Note**

Fielder is a soft white spring wheat usually grown under irrigation. It is NOT recommended in Manitoba. It is susceptible to stem rust and the smuts.

Bluesky and Wildcat are new Utility wheat varieties which yield less in Manitoba and have poorer leaf rust and bunt resistance than Glenlea. They are NOT recommended for Manitoba.

Laura is a bread wheat variety that has weaker straw and later maturity than Katepwa. It is susceptible to bunt. Therefore, it is NOT recommended in Manitoba.

## • Wheat Variety Descriptions

| Variety | Yield as % of Katepwa* | Years Tested | Days to Maturity | Seed Size | Height | Resistance to: Lodging | Stem Rust | Leaf Rust | Loose Smut | Bunt |
|---|---|---|---|---|---|---|---|---|---|---|
| Benito | 94 | 5 | 97 | Small | Medium | Fair-Good | Good | Good | Good | Fair |
| Columbus | 98 | 5 | 100 | Medium | Medium+ | Good | Good | Good | Fair | Good |
| Katepwa | 100 | 5 | 97 | Medium | Medium | Good | Good | Fair | Good | Good |
| Kenyon | 98 | 3 | 97 | Medium | Medium | Good | Good | Good | Good | Fair |
| Neepawa | 98 | 5 | 97 | Medium | Medium | Good | Good | Poor | Good | Fair |
| Roblin | 98 | 4 | 95 | Medium+ | Medium- | Excellent | Good | Good | Good | Fair |
| Biggar | 112 | 1 | 103 | Medium+ | Semidw | Excellent | Good** | Good | Poor | Poor |
| Oslo | 109 | 4 | 98 | Medium+ | Semidw | Excellent | Good | Good | Poor | Fair |
| Glenlea | 109 | 5 | 99 | Large | Medium+ | Good | Good | Good | Good | Fair |

*Average Katepwa yield is 3000 kg/ha (44.6 bu/ac) in Manitoba trials (1985-89).*
**Stem rust will develop on late planted Biggar when inoculum is abundant.*

## • Yields by Crop Variety Zone (as per cent)

| Variety | Years Tested | Zone 1 | 2 | 3 | 4 | 5 | 6** |
|---|---|---|---|---|---|---|---|
| Benito | 5 | 96 | 93 | 92 | 96 | 93 | 101 |
| Columbus | 5 | 97 | 101 | 96 | 99 | 95 | 106 |
| Katepwa* | 5 | 100 | 100 | 100 | 100 | 100 | 100 |
| Kenyon | 3 | 91 | 95 | 96 | 103 | 99 | 113 |
| Neepawa | 5 | 100 | 100 | 97 | 97 | 97 | 106 |
| Roblin | 4 | 93 | 99 | 92 | 99 | 104 | 115 |
| Biggar | 1 | 118 | 111 | 118 | 98 | 111 | 124 |
| Oslo | 4 | 112 | 106 | 106 | 111 | 116 | 116 |
| Glenlea | 5 | 94 | 103 | 105 | 118 | 116 | 122 |
| *Yield of Katepwa | | | | | | | |
| kg/ha | | 2880 | 3230 | 3070 | 2810 | 2980 | 2630 |
| bu/ac | | 43 | 48 | 46 | 42 | 44 | 39 |

**Based on 4 years data only.

# WINTER WHEAT

All registered varieties lack sufficient hardiness for conventional production in Manitoba. Seeding into standing stubble provides a snow trap that improves winter survival. Currently registered varieties are very susceptible to leaf and stem rust. Norstar is the hardiest variety available and on average yields 125% of the spring wheat variety, Katepwa, in Manitoba.

NorWin, a semi-dwarf variety, is inferior to Norstar in winter survival and yield and should NOT be grown in Manitoba.

# OILSEEDS AND SPECIAL CROPS

## BUCKWHEAT

### • Recommended Varieties

**Large Seeded**
Mancan – zones 1-5
Manor – zones 1-5

### • Variety Descriptions

| Variety | Yield as % of Mancan | Years Tested | Days to 100% Bloom | Height | | Seed Wt g/1000 |
|---|---|---|---|---|---|---|
| | | | | cm | (in) | |
| Mancan | 100* | 5 | 46 | 125 | (49) | 30.2 |
| Manor | 97 | 5 | 45 | 120 | (47) | 30.1 |

**Average yield, 2455 kg/ha (45.6 bu/acre) in Manitoba trials (1985-89).*

## CANARYSEED

### • Recommended Varieties

Elias – zones 1-5
Keet – zones 1-5

***Comment***
Elias canaryseed was developed at the University of Minnesota, and released by the Minnesota Crop Improvement Association. Breeders seed is maintained in Canada at the University of Saskatchewan, Saskatoon.

### • Variety Descriptions

| Variety | Yield as % of Keet | Years Tested | Days to Maturity | Height | | 1000 Seed wt. (g) |
|---|---|---|---|---|---|---|
| | | | | cm | (in) | |
| Elias | 99 | 5 | 104 | 70 | (28.5) | 7.4 |
| Keet | 100* | 5 | 104 | 69 | (28.0) | 6.7 |

**Average yield 1884 kg/ha (1682 lb/ac) in Manitoba trials (1985-89).*

# CANOLA-RAPESEED

## • Recommended Varieties – Canola Type

(all low erucic, low glucosinolate)

**Argentine type (Brassica napus)**
Alto – zones 1-5
Delta – zones 1-5
Global – zones 1, 2, 2A, 3 & 3A
Legend – zones 1-5
Regent – zones 1-5
Topas – zones 1, 2, 2A, 3 & 3A
Westar – zones 1-5

**Low linolenic varieties**
Stellar – zones 1-5

**Triazine tolerant varieties**
OAC Triton – zones 1-5
OAC Triumph – zones 1-5
Tribute – zones 1-5

**Polish type (Brassica campestris)**
Colt – zones 1-5
Horizon – zones1-5
Tobin – zones 1-5

***Comments***

The western Canadian oilseed crushing industry now processes only seed from canola (low erucic, low glucosinolate) varieties. Importers in other countries are also developing a preference for canola. It is recommended that producers use only Certified seed of the recommended varieties to assure acceptability of their product.

Limited production of high erucic acid rapeseed varieties for industrial markets is continuing. This production is on a contract basis only.

Alto is a spring canola variety, tested as 81-17016A and developed at the University of Alberta. Seed is distributed by Cen Alta Grain Co., Edmonton, Alberta, and will be available from Northern Sales Co. Ltd., Winnipeg.

Delta (WW1449) was developed at the Weibullsholm Plant Breeding Institute, Landskrona, Sweden. Seed is distributed by United Grain Growers, Winnipeg/Allelic Crop Technologies, Mississauga.

Legend (SV02402), Colt (SV8236579), and Horizon (SV03334) were developed by Svalof AB, Sweden. Seed is distributed by Bonis & Company Ltd., Ontario, and will be available from Manitoba Pool Elevators in 1990.

Topas (SV02223) developed by Svalof AB, Sweden, is distributed by Bonis & Company Ltd., Ontario and by Wheat City Seeds Ltd., Brandon, and Northern Sales Co. Ltd., Winnipeg.

Stellar is a canola cultivar which produces a special quality oil with low levels of linolenic acid and is grown on a contract basis only through CSP Foods.

OAC Triumph (OAC SC 85-03) is a new triazine tolerant variety developed at the University of Guelph and is available from SeCan members.

## • Variety Descriptions

| Species and Variety | Yield as % of Check | Years Tested | Days to Maturity | Height | | Seed oil | Meal Protein | Resistance to | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cm | (in) | (%) | (%) | White Rust/ Staghead | Blackleg |
| **Argentine (*B. napus*)[1]** | | | | | | | | | |
| Alto | 101 | 2 | 95 | 106 | (42) | 44.3 | 47.7 | Good | Poor |
| Delta | 107 | 2 | 93 | 124 | (49) | 42.4 | 43.7 | Good | Fair |
| Global | 98 | 3 | 100 | 138 | (54) | 42.1 | 42.7 | Good | Fair |
| Legend | 96 | 2 | 93 | 111 | (44) | 42.6 | 47.7 | Good | Fair |
| Regent | 91 | 4 | 94 | 112 | (44) | 43.1 | 47.4 | Good | Fair |
| Topas | 92 | 2 | 102 | 115 | (45) | 44.0 | 43.3 | Good | Poor |
| Westar | 100* | 5 | 92 | 108 | (43) | 43.8 | 46.3 | Good | Poor |
| **Low linolenic varieties[1]** | | | | | | | | | |
| Stellar | 78 | 3 | 94 | 104 | (41) | 43.7 | 46.4 | Good | Fair |
| **Triazine tolerant varieties[2]** | | | | | | | | | |
| OAC Triton | 100* | 5 | 94 | 103 | (41) | 41.5 | 46.7 | Good | Poor |
| OAC Triumph | 105 | 2 | 96 | 110 | (43) | 41.7 | 42.5 | Good | Poor |
| Tribute | 93 | 4 | 93 | 99 | (39) | 40.5 | 48.1 | Good | Poor |
| **Polish (*B. campestris*)[3]** | | | | | | | | | |
| Colt | 107 | 2 | 82 | 107 | (42) | 42.7 | 43.5 | Poor | Poor |
| Horizon | 102 | 2 | 82 | 109 | (43) | 42.8 | 42.6 | Poor | Poor |
| Tobin | 100* | 5 | 82 | 106 | (42) | 42.3 | 42.8 | Good | Poor |

[1] *Yield as % of Westar* [2] *Yield as % of OAC Triton* [3] *Yield as % of Tobin*

* *Within class check yields in Manitoba Trials (1985-89)*
*Westar: 2671 kg/ha (47.7 bu/ac) OAC Triton: 1919 kg/ha (34.2 bu/ac)*
*Tobin: 2038 kg/ha (36.4 bu/ac)*

## • Yields by Crop Variety Zone (per cent)

| Species and Variety | Years Tested | Zone** | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| **Argentine (*B. napus*)[1]** | | | | | | |
| Alto | 2 | 134 | 103 | 95 | 101 | 98 |
| Delta | 2 | 122 | 106 | 104 | 110 | 102 |
| Global | 3 | 94 | 97 | 92 | 97 | 109 |
| Legend | 2 | 119 | 90 | 99 | 98 | 88 |
| Regent | 4 | 100 | 100 | 98 | 93 | 78 |
| Topas | 2 | 79 | 88 | 94 | 97 | 93 |
| Westar* | 5 | 100 | 100 | 100 | 100 | 100 |
| **Low linolenic varities[1]** | | | | | | |
| Stellar | 3 | 77 | 85 | 73 | 78 | 80 |
| **Triazine tolerant varieties[2]** | | | | | | |
| OAC Triton* | 5 | 100 | 100 | 100 | 100 | 100 |
| OAC Triumph | 2 | 111 | 103 | 114 | 99 | 100 |
| Tribute | 4 | 87 | 98 | 95 | 93 | 91 |
| **Polish (*B. campestris*)[3]** | | | | | | |
| Colt | 2 | 108 | 109 | 102 | 100 | 114 |
| Horizon | 2 | 110 | 101 | 97 | 95 | 111 |
| Tobin* | 5 | 100 | 100 | 100 | 100 | 100 |

[1] *Yield as % of Westar* [2] *Yield as % of OAC Triton* [3] *Yield as % of Tobin*

| | | | | | | |
|---|---|---|---|---|---|---|
| * **Within class check yields:** | | | | | | |
| **Westar** | | | | | | |
| kg/ha | | 2615 | 2557 | 2712 | 2393 | 2998 |
| bu/ac | | 46.7 | 40.7 | 48.4 | 38.1 | 53.5 |
| **OAC Triton** | | | | | | |
| kg/ha | | 2057 | 1907 | 1861 | 1791 | 2086 |
| bu/ac | | 36.7 | 34.0 | 33.2 | 32.0 | 37.2 |
| **Tobin** | | | | | | |
| kg/ha | | 2210 | 1462 | 2132 | 1920 | 2291 |
| bu/ac | | 39.4 | 26.1 | 38.0 | 34.3 | 40.9 |

**Zone 6 is not included due to lack of data*

# FABABEANS

## • Recommended Varieties

Aladin – zones 2, 3, 4 & 5
Encore– zones 2, 3, 4 & 5
Herz Freya – zones 2, 3, 4 & 5
Outlook – zones 2, 3, 4 & 5
Pegasus – zones 2, 3, 4 & 5

***Comments***

Encore, developed at the Universityof Saskatchewan, was registered in 1985. Encore's maturity and yield are similar to Pegasus, while protein is slightly higher. Plant height is similar to Outlook. Seed is available from SeCan members.

Ackerperle has been deregistered and therefore deleted from the recommended list.

## • Variety Descriptions

| Variety | Yield as % of Pegasus | Years Tested | Seed Wt. g/1000 | Days to Maturity | Protein Content % |
|---|---|---|---|---|---|
| Aladin | 98 | 4 | 408 | 106 | 29.8 |
| Encore | 101 | 4 | 356 | 105 | 29.9 |
| Herz Freya | 102 | 5 | 381 | 102 | 28.6 |
| Outlook | 101 | 4 | 328 | 105 | 29.6 |
| Pegasus | 100* | 5 | 355 | 105 | 29.7 |

**Average Yield 4880 kg/ha (4353 lb/acre) in Manitoba trials (1985–89)*

# FIELD BEANS

## • Recommended Varieties

| Variety | Type | |
|---|---|---|
| OAC Seaforth | Navy | South of Township 14, Zones 1, 2, 2A, 3 & 3A and that portion of Zone 4 with a minimum corn heat unit accumulation of approximately 2400. |
| Seafarer | Navy | |
| Fiesta | Pinto | See comments. |
| Topaz | Pinto | See comments. |

***Comments:***
Fiesta is sponsored by R. T. Stow Ltd., Carman.
Topaz is sponsored by Northrup King.
Loop has been deregistered and therefore has been removed from the recommended list.

## • Variety Descriptions

| Type | Variety | Yield as % of Seafarer | Years Tested | Seed Wt g/1000 | Days to Maturity | Plant Height cm | Plant Height (in) |
|---|---|---|---|---|---|---|---|
| Navy | OAC Seaforth | 100 | 2 | 160 | 92 | 44 | (17) |
| Navy | Seafarer | 100* | 2 | 162 | 93 | 48 | (19) |
| Pinto | Fiesta | 116 | 2 | 301 | 94 | 59 | (23) |
| Pinto | Topaz | 123 | 2 | 304 | 93 | 66 | (26) |

**Average yield 2630 kg/ha (2346 lb/acre) in Manitoba trials (1988–89)*

# FIELD PEAS

## • Recommended Varieties

**FOOD**

**Yellow Peas**

Century – zones 1-5 medium-seeded
Express – zones 1-5 medium-seeded
Fortune – zones 1-5 medium seeded
Tipu – zones 1-5 medium-seeded, semi-leafless
Titan – zones 1-5 large-seeded
Trapper – zones 1-5 small-seeded
Victoria – zones 1-5 medium -seeded

**Green Peas**

Princess –zones 1-5 medium-seeded
Triumph – zones 1-5 large-seeded

**FEED**

Tara–zones 1-5 medium-seeded

***Comments***

Fortune, developed by Svalof AB, Sweden was registered in Canada in 1987. Fortune is high yielding but matures late and is more susceptible to powdery mildew. Manitoba Pool has the seed distribution rights through Bonis & Co. Ltd., Lindsay, Ontario.

Express, also developed by Svalof AB, Sweden was registered in Canada in 1987. Express is high yielding and early maturing but more susceptible to powdery mildew. Manitoba Pool has the seed distribution rights through Bonis & Co. Ltd., Lindsay, Ontaio.

Princess, a green seeded variety developed by Wilbur Ellis Co., U.S.A. was registered in Canada in 1988. Princess is early maturing but yields lower than other cultivars. CanMar Grain Inc., Regina, Saskatchewan, has the seed distribution rights.

Triumph, a green seeded variety, is expected to be de-registered in 1991.

Fortune may be removed from the Recommended List due to low yields in 1988 and 1989 tests in Manitoba.

## • Variety Descriptions

| Variety | Yield as % of Century | Years Tested | Days to Maturity | Length of Vine cm | Length of Vine (in.) | Seed Weight g/1000 | Protein % |
|---|---|---|---|---|---|---|---|
| **FOOD TYPE** | | | | | | | |
| **Yellow Peas** | | | | | | | |
| Century | 100* | 3 | 91 | 113 | (44) | 228 | 24.5 |
| Express | 123 | 3 | 88 | 68 | (27) | 214 | 24.1 |
| Fortune | 100 | 3 | 98 | 75 | (30) | 173 | 25.4 |
| Tipu | 96 | 3 | 93 | 113 | (44) | 219 | 23.3 |
| Titan | 111 | 3 | 95 | 116 | (46) | 248 | 23.4 |
| Trapper | 102 | 3 | 90 | 99 | (39) | 141 | 25.1 |
| Victoria | 116 | 3 | 87 | 91 | (36) | 180 | 23.8 |
| **Green Peas** | | | | | | | |
| Princess | 94 | 2 | 84 | 66 | (26) | 177 | 22.7 |
| Triumph | 112 | 3 | 94 | 78 | (31) | 290 | 24.7 |
| **FEED TYPE** | | | | | | | |
| Tara | 122 | 3 | 93 | 105 | (41) | 204 | 24.0 |

**Average yield 1933 kg/ha (28.7 bu/ac) in Manitoba Trials (1987-89).*

## • Yields by Crop Variety Zone (per cent)

| Variety | Years Tested | Zone 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **FOOD TYPE** | | | | | | |
| **Yellow** | | | | | | |
| Century* | 3 | 100 | 100 | 100 | 100 | 100 |
| Express | 3 | 122 | 135 | 112 | 126 | 126 |
| Fortune | 3 | 108 | 127 | 85 | 71 | 108 |
| Tipu | 3 | 89 | 103 | 91 | 98 | 103 |
| Titan | 3 | 101 | 119 | 106 | 121 | 113 |
| Trapper | 3 | 96 | 112 | 96 | 108 | 105 |
| Victoria | 3 | 107 | 115 | 114 | 121 | 123 |
| **Green** | | | | | | |
| Princess | 2 | 96 | 100 | 92 | 92 | 93 |
| Triumph | 3 | 115 | 126 | 99 | 110 | 118 |
| **FEED TYPE** | | | | | | |
| Tara | 3 | 113 | 124 | 118 | 134 | 125 |
| * **Century** | | | | | | |
| kg/ha | | 2211 | 1900 | 1862 | 2012 | 1744 |
| bu/ac | | 32.9 | 28.3 | 27.7 | 29.9 | 25.9 |

# FLAX

## • Recommended Varieties

Andro – zones 1-5
Dufferin – zones 1-5
Linott – zones 1-5
McGregor – zones 1-5
NorLin – zones 1-5
NorMan – zones 1-5

***Comments:***

Plant all varieties early for maximum yield, particularly Dufferin and McGregor. In northern areas use the earlier Andro, Linott, NorLin or NorMan. When seeding is delayed Andro, Linott and NorLin will give the best results.

Andro was developed by the Crop Development Center of the University of Saskatchewan and was registered in 1988. Andro is a selection from McGregor. In comparison to McGregor, Andro is earlier maturing and has shorter straw, larger seed size and is lower yielding in early seeding. Seed of Andro is available from SeCan members.

Linott may be removed from the recommended list in 1991 due to poor yields.

## • Variety Descriptions

| Variety | Yield as % of Norlin | Years Tested | Days to Maturity | Height cm | Height (in) | Resistance to Lodging | Seed Weight g/1000 | % Oil Content | Oil** Quality | Resistance to Rust | Resistance to Wilt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Andro | 94 | 2 | 95 | 55 | (22) | Fair | 5.6 | 42.4 | 185 | Good | Fair |
| Dufferin | 101 | 5 | 103 | 63 | (25) | Fair | 5.4 | 43.8 | 181 | Good | Fair |
| Linott | 87 | 5 | 91 | 55 | (22) | Fair | 5.5 | 42.7 | 182 | Good | Fair |
| McGregor | 103 | 5 | 102 | 61 | (24) | Good | 5.1 | 42.9 | 182 | Good | Fair |
| NorLin | 100* | 5 | 93 | 57 | (22) | Fair | 5.7 | 42.5 | 181 | Good | Fair |
| NorMan | 101 | 5 | 95 | 57 | (22) | Fair | 5.6 | 43.9 | 177 | Good | Fair |

*Average yield 1784 kg/ha (28.4 bu/acre) in Manitoba trials (1985-89).*
***Drying property measured in iodine units.*

## • Yields by Crop Variety Zone (per cent)

| Variety | Years Tested | Zone** 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| Andro | 2 | 95 | 98 | 96 | 83 | 98 |
| Dufferin | 5 | 89 | 105 | 101 | 95 | 102 |
| Linott | 5 | 85 | 85 | 89 | 86 | 91 |
| McGregor | 5 | 101 | 107 | 106 | 97 | 103 |
| NorLin* | 5 | 100 | 100 | 100 | 100 | 100 |
| NorMan | 5 | 95 | 105 | 104 | 97 | 102 |
| ***NorLin** | | | | | | |
| kg/ha | | 1785 | 1558 | 1786 | 1947 | 1892 |
| bu/acre | | 28.4 | 24.8 | 28.5 | 31.0 | 30.1 |

***Zone 6 is not included due to lack of data.*

# LENTILS

## • Recommended Varieties

Eston – zones 1-5
Laird – zones 1, 2, 2A, 3 & 3A

## • Lentil Variety Descriptions

| Type | Variety | Years Tested | Yield as % of Laird | Days to Maturity | Seed Weight g/1000 | Plant Height cm | Plant Height (in) |
|---|---|---|---|---|---|---|---|
| Persian | Eston | 5 | 125 | 94 | 34 | 36 | (15) |
| Chilean | Laird | 5 | 100* | 102 | 60 | 49 | (19) |

*Average yield 1337 kg/ha (1193 lb/acre) in Manitoba trials (1985-89).*

## • Yields by Crop Variety Zone (per cent)

| Variety | Zone | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 5 |
| Years Tested | 5 | 4 | 5 | 4 |
| Eston | 106 | 101 | 163 | 107 |
| Laird* | 100 | 100 | 100 | 100 |
| *Laird check | | | | |
| kg/ha | 1468 | 1681 | 1160 | 1288 |
| lbs/acre | 1309 | 1499 | 1035 | 1149 |

# MUSTARD

## • Recommended Varieties

**Yellow type (Sinapis alba)**
Gisilba – zones 1-5
Kirby – zones 1-5
Ochre – zones 1-5
Tilney – zones 1-5

**Oriental (Brassica funcea)**
Cutlass – zones 1-5
Lethbridge 22A – zones 1-5

***Comments***
The brown mustard cultivar Scimitar has a green seed problem which makes it unacceptable to the Mustanrd Association. It is therefore NOT recommended.

Brown mustards have not been included because there are no recommended registered varieties. Common brown mustard yielded 111% of Gisilba in Manitoba Trials (1985-89).

Domo mustard has not been included due to lack of data.

Kirby mustard may be de-registered in 1990.

## • Variety Descriptions

| Type | Variety | Years Tested | Yield as % of Gisilba | Days to Maturity | Height | | Oil |
|---|---|---|---|---|---|---|---|
| | | | | | cm | (in) | % |
| Yellow | Gisilba | 5 | 100* | 94 | 101 | (40) | 26.9 |
| Yellow | Kirby | 4 | 106 | 96 | 113 | (44) | 27.5 |
| Yellow | Ochre | 3 | 102 | 96 | 111 | (44) | 27.1 |
| Yellow | Tilney | 5 | 102 | 94 | 103 | (41) | 26.8 |
| Oriental | Cutlass | 5 | 130 | 89 | 113 | (44) | 37.3 |
| Oriental | Leth 22A | 5 | 108 | 89 | 111 | (44) | 37.5 |

**Average yield 2057 kg/ha (1837 lb/acre) in Manitoba trials (1985-89).*

## • Yields by Crop Variety Zone (per cent)

| Variety | Years Tested | Zone** | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| Gisilba* | 5 | 100 | 100 | 100 | 100 | 100 |
| Kirby | 4 | 112 | 134 | 103 | 98 | 101 |
| Ochre | 3 | 109 | 113 | 100 | 97 | 99 |
| Tilney | 5 | 107 | 113 | 100 | 102 | 95 |
| Cutlass | 5 | 132 | 147 | 127 | 138 | 119 |
| Leth 22A | 5 | 107 | 126 | 107 | 110 | 102 |
| *Gisilba check | | | | | | |
| kg/ha | | 2055 | 1780 | 2093 | 1976 | 2217 |
| lb/acre | | 1835 | 1589 | 1869 | 1764 | 1979 |

**Zone 6 is not included due to lack of test sites.*

# POTATOES

## • Recommended Varieties

| Early crop | Storage |
|---|---|
| Red: Norland | Red: Norland, Red Pontiac |
| White: Carlton | White: Norchip, Monona, Kennebec, Shepody |
| Conestoga | Russet: Russet Burbank, Norgold Russet |
| | Yellow Flesh: Yukon Gold |

## • Potato Variety Descriptions

- **Carlton:** An early maturing variety with white-skinned, oval, shallow-eyed tubers that size early.
- **Conestoga:** A good-yielding, early maturing variety with white-skinned, round, shallow-eyed and high specific gravity tubers. It is suitable for early chipping and early table stock sales but is somewhat susceptible to hollow heart.
- **Norland:** A good yielding early maturing variety with red-skinned, shallow-eyed tubers suited for early harvest and storage until mid-winter.
- **Kennebec:** A very late maturing high yielding variety with white-skinned, shallow-eyed tubers suitable for chipping. It is susceptible to greening.
- **Monona:** A medium to high-yielding variety of mid-season maturity with white-skinned, oblong, shallow-eyed tubers of medium to low specific gravity that are suitable for chipping. Chips of acceptable quality can be produced after long-term storage.
- **Norchip:** A good yielding, medium maturing variety with white-skinned, high-specific-gravity tubers. It has acceptable chipping characteristics and a short dormancy period.
- **Norgold Russet:** A good-yielding variety of medium maturity with oblong to long uniform tubers with short dormancy period. Cooking quality is suited to baking and table stock sales but the percentage of grade-out resulting from hollow heart can be very high making the potatoes unsaleable without the aid of mechanical hollow heart sorting equipment.

- **Red Pontiac:** A high yielding drought tolerant variety with red-skinned, medium deep-eyed tubers of low dry matter content. Suitable for table stock use.
- **Russet Burbank:** A high quality, late maturing variety with russet-skinned, long, shallow-eyed tubers suitable for processing (other than chips), baking and table stock use. Its tuber shape can be extremely variable if plants are subject to stress during the tuber enlargement period of growth.
- **Shepody:** A high quality, late mid-season maturing variety with large, white-skinned, oblong-to-elliptical tubers. Yield, specific gravity and french fry color are similar to Russet Burbank. First harvest for processing is expected to be acceptable at a minimum of 5 to 7 days earlier than Russet Burbank.
- **Yukon Gold:** a medium-yielding, medium maturing, yellow-fleshed variety with high specific gravity and shallow-eyed tubers with acceptable table stock cooking quality. The percentage of hollow heart can frequently exceed the Canada grade tolerance levels.

# SAFFLOWER

## • Recommended Variety

Saffire

## • Variety Description

| Variety | Yield* | | Years Tested | Days to Maturity | Height | | Seed Wt. | Resistance to: | |
|---|---|---|---|---|---|---|---|---|---|
| | kg/ha | (lb/ac) | | | cm | (in) | g/1000 | Sclerotinia Head Rot | Alternaria Leaf Spot |
| Saffire | 1537 | (1371) | 4 | 112 | 46 | (18) | 36.6 | Fair | Fair |

*Average yield in Manitoba trials (1986-89).*

# SOYBEANS

## • Recommended Varieties

| | Maturity Group | Minimum Corn Heat Unit Requirement |
|---|---|---|
| Baron | 000 | 2450 |
| KG20 | 00 | 2400 |
| Maple Amber | 000 | 2300 |
| Maple Ridge | 000 | 2300 |
| McCall | 00 | 2500 |

Soybeans are placed into maturity groups based on their photoperiod sensitivity. The 00 maturity group soybeans are the earliest maturing photoperiod sensitive soybeans, adapted for production in the 45 to 50 degree latitude range. 000 maturity group soybeans are very early maturing, photoperiod insensitive soybeans, adapted for production at high latitudes.

### • Variety Description

| Variety | Yield as % of Maple Amber | Years Tested | Seed Weight g/1000 | Days to Maturity | | Protein Content | Oil Content | Height | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Average | Range | % | % | cm | (in) |
| Baron | 108 | 5 | 160 | 111 | 99-124 | 40.1 | 19.6 | 73 | (29) |
| KG 20 | 110 | 5 | 159 | 112 | 100-126 | 39.8 | 18.4 | 75 | (30) |
| Maple Amber | 100* | 5 | 156 | 114 | 101-130 | 41.0 | 20.3 | 78 | (31) |
| Maple Ridge | 108 | 5 | 145 | 110 | 98-118 | 40.7 | 18.9 | 69 | (27) |
| McCall | 98 | 5 | 144 | 119 | 106-134 | 39.3 | 19.0 | 83 | (33) |

*Average yield 2586 kg/ha (2302 lb/ac) in Manitoba locations of the Western Co-op registration trials (1985-89).*

# SUGAR BEETS

This crop is grown under contract with Manitoba Sugar Company and seed is provided under the contract.

# SUNFLOWERS

### • Hybrids

All sunflower hybrids listed in the hybrid description table are recommended in Zones 1 and 2 (south of township 18), and Zones 2A, 3, 3A and 4 (south of township 19).

***Comments:***

All hybrids showed high levels of susceptibility to rust in the Western and South western part of Manitoba where races 3 and 4 are prevalent (1988-89 field evaluation).

The dwarf hybrid Sunwheat 101 is recommended at rows 45 cm (18 in.) apart with a population density of 75,000-100,000 plants/hectare (30,000-40,000 plants per acre). Sunwheat also performs better with later seeding. At Morden, the yields increased substantially when seeding was delayed from mid-May to mid-June in tests between 1986-88.

The hybrid Trisun 849 is a high oleic acid hybrid, grown under contract through Sigco Research, Breckenridge, MN.

# Sunflower Hybrid Descriptions

| Hybrid Oil Type | Company | Yield as % of Checks[1] | Years Tested | Days to Maturity | % Oil (10% Moist.) | Height | | Resistance to | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | cm | (in) | Rust[2] | Verticillium Wilt | Downy Mildew[3] |
| 205 | Cargill | 94 | 5 | 114 | 42.7 | 155 | (61) | Fair | Good | Fair |
| 207 | Cargill | 108 | 5 | 116 | 38.9 | 170 | (67) | Good | Good | Poor |
| SF 103 | Cargill | 104 | 5 | 116 | 39.6 | 169 | (67) | Fair | Good | Poor |
| SF 187* | Cargill | 110 | 3 | 117 | 40.7 | 134 | (54) | Good | Good | Poor |
| 6240* | Pioneer | 102 | 3 | 111 | 43.6 | 152 | (60) | Fair | Good | Good |
| 6440* | Pioneer | 103 | 3 | 117 | 43.5 | 161 | (63) | Fair | Good | Good |
| Cadet* | Jacques | 98 | 3 | 108 | 43.0 | 140 | (55) | Fair | Good | Fair |
| Capri* | Jacques | 103 | 3 | 115 | 44.1 | 142 | (56) | Fair | Good | Poor |
| Challenger | Jacques | 100 | 5 | 113 | 42.6 | 147 | (58) | Fair | Good | Fair |
| Dak. Gold II | SeedTec | 93 | 5 | 111 | 44.9 | 149 | (59) | Fair | Good | Poor |
| DO 164 | Dahlgren | 94 | 5 | 113 | 40.9 | 159 | (63) | Fair | Good | Good |
| DO 707* | Dahlgren | 105 | 3 | 115 | 42.3 | 146 | (57) | Fair | Good | Fair |
| DO 855 | Dahlgren | 93 | 5 | 113 | 42.0 | 153 | (60) | Good | Fair | Good |
| IS 7000 | Interstate | 92 | 5 | 111 | 43.4 | 150 | (59) | Fair | Good | Poor |
| 7101 | Interstate | 94 | 5 | 113 | 41.7 | 156 | (62) | Fair | Good | Good |
| IS 7111 | Interstate | 99 | 5 | 113 | 43.8 | 153 | (60) | Fair | Good | Poor |
| MRS 40* | Interstate | 92 | 3 | 108 | 41.5 | 137 | (54) | Fair | Good | Poor |
| K 837 | King Agro | 93 | 4 | 107 | 41.0 | 166 | (65) | Good | Fair | Poor |
| S 1296 | NK | 102 | 5 | 112 | 42.7 | 149 | (59) | Fair | Good | Fair |
| S 330 | SeedTec | 98 | 5 | 117 | 40.9 | 155 | (61) | Fair | Good | Poor |
| 422 | Sigco | 93 | 4 | 109 | 40.7 | 143 | (56) | Fair | Good | Poor |
| 452 | Sigco | 101 | 5 | 116 | 43.2 | 150 | (59) | Fair | Good | Good |
| 465A* | Sigco | 104 | 3 | 117 | 41.6 | 151 | (59) | Fair | Good | Good |
| Sunwheat 101* | SeedTec | 85 | 4 | 107 | 38.3 | 93 | (37) | Fair | Good | Fair |
| Trisun 849* | Sigco | 90 | 3 | 116 | 41.8 | 160 | (63) | Fair | Fair | Poor |
| **Non-Oilseed Type** | | | | | **Seed Size % over 28/64** | | | | | |
| D 131 | Dahlgren | 105 | 5 | 116 | 30 | 154 | (61) | Good | Fair | Poor |
| R. H. 2141 | Agway | 104 | 5 | 114 | 24 | 164 | (65) | Fair | Fair | Poor |
| 954 | Sigco | 99 | 5 | 115 | 58 | 158 | (62) | Fair | Good | Poor |
| 964 | Sigco | 104 | 5 | 110 | 39 | 151 | (59) | Fair | Fair | Poor |
| 974* | Sigco | 101 | 3 | 117 | 74 | 167 | (66) | Fair | Good | Poor |

*On recommended list for the first time.

[1] Mean of hybrids Cargill 205, Cargill 207 and IS 7111, 1985-88 all Manitoba: 2526 kg/ha (2255 lb/acre).

[2] Resistance indicated is to race 1 at Morden. Hybrids are susceptible to other races (see Comments).

[3] Resistance indicated is to race 2. Hybrids are susceptible to race 3, currently established in Manitoba.

* Sunwheat 101 is a dwarf sunflower hybrid which requires specific management practices (see comments).

# CORN

## • Corn Hybrid Descriptions—Grain

| Heat Unit Rating | Hybrid | Company | Hybrid Type[1] | Days to Silk | Stalk Breakage (%) | Root Lodging (%) | Grain Density[2] (% of chks) | Grain Moisture (%) | Grain Yield[3] (% of chks) |
|---|---|---|---|---|---|---|---|---|---|
| 2050 | Pride K020* | King Agro | 3W | 67 | 8.2 | 1.6 | 105 | 21.1 | 85 |
| 2100 | 2488 | Pickseed | 3W | 68 | 6.7 | 2.2 | 99 | 23.1 | 85 |
| 2150 | Coop 2335* | U Coop | SC | 70 | 9.9 | 0.0 | 98 | 22.6 | 92 |
| | 3995 | Pioneer | 3W | 68 | 6.1 | 0.9 | 101 | 25.2 | 93 |
| | DK233 | Dekalb | SC | 68 | 7.6 | 0.0 | 102 | 25.9 | 94 |
| | Pride K730 | King Agro | 3W | 72 | 3.6 | 0.9 | 103 | 24.0 | 96 |
| | LG3 | Hyland | 3W | 68 | 3.0 | 1.5 | 100 | 26.8 | 95 |
| | 2435 | Pickseed | 3W | 70 | 9.0 | 2.0 | 101 | 24.4 | 88 |
| 2200 | N0565* | NK | 3W | 71 | 1.8 | 0.0 | 100 | 24.6 | 106 |
| | Coop 2350 | U Coop | OC | 72 | 6.6 | 1.4 | 100 | 24.8 | 92 |
| | DK 235 | Dekalb | OC | 71 | 1.9 | 4.9 | 100 | 25.2 | 107 |
| | G 4017 | Funk | 3W | 72 | 2.6 | 0.5 | 100 | 26.0 | 102 |
| | HL 3282 | Hyland | 3W | 71 | 4.2 | 0.5 | 97 | 27.5 | 104 |
| 2250 | Coop 6312 | U Coop | 3W | 72 | 4.2 | 2.8 | 100 | 26.3 | 103 |
| | DK 246 | Dekalb | 3W | 72 | 4.9 | 3.8 | 98 | 25.5 | 100 |
| | G 4067 | Funk | 3W | 71 | 2.9 | 1.0 | 95 | 27.6 | 102 |
| | 2477 | Pickseed | 3W | 70 | 4.0 | 2.8 | 100 | 28.4 | 100 |
| | 3954* | Pioneer | SC | 71 | 1.3 | 0.9 | 98 | 27.3 | 121 |
| | 3969 | Pioneer | SC | 71 | 5.1 | 3.7 | 98 | 26.9 | 104 |
| | 3979 | Pioneer | SC | 70 | 1.3 | 0.5 | 96 | 26.5 | 115 |
| | SX 104 | Cargill | MSC | 70 | 7.8 | 0.0 | 98 | 27.8 | 98 |
| | G 4083 | Funk | SC | 72 | 2.2 | 0.4 | 100 | 27.3 | 94 |
| | Px 9028 | NK | 3W | 73 | 2.2 | 1.3 | 100 | 25.1 | 95 |
| 2300** | Cocp 2325 | U Coop | SC | 73 | 4.0 | 1.4 | 99 | 26.1 | 105 |
| 2350** | Pride 1111 | King Agro | SC | 73 | 7.1 | 0.0 | 95 | 27.8 | 103 |
| | 3953* | Pioneer | SC | 72 | 1.0 | 0.0 | 94 | 29.6 | 109 |

* *On recommended list for first time*

** *Crop Insurance coverage not available*

[1] *SC = Single Cross; 3W = 3-Way Cross; MSC = Modified Single Cross; OC = Other Cross*

[2] *Mean Grain Density (Checks) = 704 kg/m³ (56.4 lb/bu)*

[3] *Mean Grain Yield (Checks) = 4.92 t/ha (78.4 bu/ac). Checks one 3995, K730, LG3, 3979, G4017.*

## Corn Hybrid Descriptions—Silage

| Hybrid | Company | Hybrid Type[1] | Days to Silk | Root Lodging (%) | Silage Yield[2] (% of mean) | Plant Moisture (%) |
|---|---|---|---|---|---|---|
| 2488 | Pickseed | 3W | 66 | 1.3 | 79 | 56.6 |
| 2435 | Pickseed | 3W | 67 | 0.4 | 81 | 58.2 |
| Coop 2335 | U Coop | SC | 69 | 0.5 | 87 | 59.3 |
| DK 246 | Dekalb | 3W | 70 | 0.8 | 89 | 59.5 |
| SX104 | Cargill | MSC | 69 | 1.3 | 94 | 61.2 |
| 3902* | Pioneer | SC | 69 | 1.0 | 108 | 61.4 |
| HL 3282 | Hyland | 3W | 69 | 0.8 | 92 | 61.4 |
| Coop 2325 | U Coop | SC | 72 | 0.8 | 109 | 61.7 |
| DK 233 | Dekalb | SC | 67 | 1.4 | 81 | 61.8 |
| LG 3 | Hyland | 3W | 67 | 2.7 | 83 | 62.5 |
| Pride 1111 | King Agro | SC | 72 | 0.0 | 103 | 62.8 |
| 2120 | Pickseed | 3W | 68 | 2.6 | 93 | 62.8 |
| Coop 2350 | U Coop | OC | 69 | 0.8 | 93 | 62.9 |
| Coop 6312 | U Coop | 3W | 71 | 0.3 | 102 | 63.3 |
| 2477 | Pickseed | 3W | 67 | 0.0 | 95 | 63.3 |
| Pride K730 | King Agro | 3W | 70 | 1.1 | 104 | 63.4 |
| N1110 | NK | 3W | 71 | 0.6 | 109 | 64.4 |
| 3957 | Pioneer | SC | 73 | 0.0 | 109 | 64.5 |
| 3929* | Pioneer | SC | 69 | 2.3 | 97 | 64.7 |
| 3979 | Pioneer | SC | 69 | 0.6 | 109 | 64.8 |
| HL 3251 | Hyland | 3W | 69 | 1.6 | 94 | 65.6 |
| 1927* | Cargill | SC | 74 | 0.4 | 108 | 65.6 |
| JX3 | Jacques | SC | 73 | 1.2 | 106 | 65.8 |
| PX 9060 | NK | SC | 73 | 0.2 | 103 | 65.8 |
| HL 2260 | Hyland | SC | 73 | 1.4 | 111 | 65.9 |
| 3851* | Pioneer | MSC | 72 | 0.3 | 103 | 66.0 |
| 3953 | Pioneer | SC | 71 | 0.6 | 108 | 66.2 |
| T778 | Dekalb | MSC | 72 | 0.5 | 111 | 66.2 |
| PX9028 | NK | 3W | 71 | 0.7 | 97 | 66.4 |
| G 4066 | Funk | MSC | 72 | 0.0 | 99 | 66.6 |
| Pride K1115 | King Agro | MSC | 72 | 0.4 | 100 | 67.3 |
| HL 2275* | Hyland | SC | 75 | 0.5 | 109 | 67.7 |
| SX108 | Cargill | SC | 75 | 0.3 | 111 | 67.7 |
| HL 2428 | Hyland | SC | 76 | 1.4 | 118 | 68.4 |
| G 4018 | Funk | SC | 77 | 1.7 | 123 | 70.6 |

** On recommended list for first time*

*[1] SC = Single Cross; 3W = 3-Way Cross; MSC = Modified Single Cross; OC = Other Cross*

*[2] Mean Silage DM Yield = 11.4 t/ha (5.09 tons/ac)*

# FORAGE CROPS

## GRASSES

### • Recommended Varieties
**(listed in alphabetical order)**

**Bluegrass***

**Bromegrass**
Baylor
Bravo
Carlton
Jubilee

**Creeping Red Fescue***

**Crested Wheatgrass**
Fairway
Nordan
Parkway

**Intermediate Wheatgrass**
Chief

**Meadow Fescue**
Ensign
Trader

**Orchardgrass**
Kay

**Reed Canarygrass**
Rival**
Vantage**

**Russian Wild Ryegrass**
Swift

**Slender Wheatgrass**
Revenue

**Tall Wheatgrass**
Orbit

**Timothy**
***Comment:***
Pasture type varieties of Timothy are designated because of their growth habit and regrowth abilities.
Champ – pasture type
Climax – hay type
Itasca – hay type
Richmond – hay and pasture type
Timfor – hay and pasture type

** Insufficient data available for variety recommendation.*

***Rival and Vantage are low in alkaloid content making them superior to high alkaloid varieties such as Castor in feed intake and animal performance. Alkaloids are nitrogeneous compounds that adversely affect the micro-organisms in the rumen and the nervous system of the animal.*

# LEGUMES

## • Recommended Varieties
**(listed in alphabetical order)**

***Alfalfa***

**Early Maturing**

Early maturing hay type varieties develop quickly in the spring and may provide more and earlier regrowth than medium maturing varieties.

Admiral – Flemish
Apica – Flemish
Anchor – Flemish
Angus – Flemish
Apollo II – Flemish & Variegated
Citation – Flemish
Oneida VR – Flemish & Variegated
Pacer – Flemish
Pioneer 526 – Flemish
Primal – Flemish
Saranac – Flemish
Thor – Flemish
Trumpetor – Flemish
Turbo – Flemish
Vista – Flemish

**Medium Maturing**

The medium maturing hay type varieties are more winter hardy than the early maturing varieties.

Algonquin – Variegated
Beaver – Variegated
Glory – Flemish & Variegated
OAC Minto – Flemish & Variegated
Peace – Variegated

**Creeping rooted**

Creeping rooted alfalfa's are more flood and drought tolerant than the early or medium maturing varieties

Rambler – pasture type – Variegated
Rangelander – pasture and hay type – Variegated
Roamer – pasture type – Variegated
Spredor II – pasture and hay type – Flemish & Variegated

For persistence on marginal soils, select varieties from the creeping rooted and medium maturing recommended list.

## •Recommended Varieties – continued

Early maturing, medium maturing and creeping rooted alfalfa varieties grown in Manitoba fall into two categories – Variegated or Flemish.

Variegated alfalfas (*Medicago media*) are derived from crosses between *M. sativa* (purple flowered and *M. falcata* (yellow flowered) alfalfa. Their flowers range in color and can be purple, blue, yellow, or white. The most cold-tolerant varieties grown in Manitoba are variegated. These have been bred to combine winterhardiness and drought tolerance with good yield and satisfactory regrowth.

Flemish type alfalfa (*M. sativa*) originated in northern France. They have purple flowers and are early growing, quick to recover after cutting and moderately winter hardy. Flemish alfalfas should be harvested several days earlier than variegated types to maintain quality.

***Alsike Clover****

***Birdsfoot Trefoil***

Cree – for seed and pasture
Empire – for seed and pasture
Leo – for seed and pasture

***Red Clover****

***Sweet Clover***

Norgold – yellow blossom, low coumarin
Polara – white blossom, low coumarin
Yukon –yellow blossom

**Insufficient data available for variety recommendation.*

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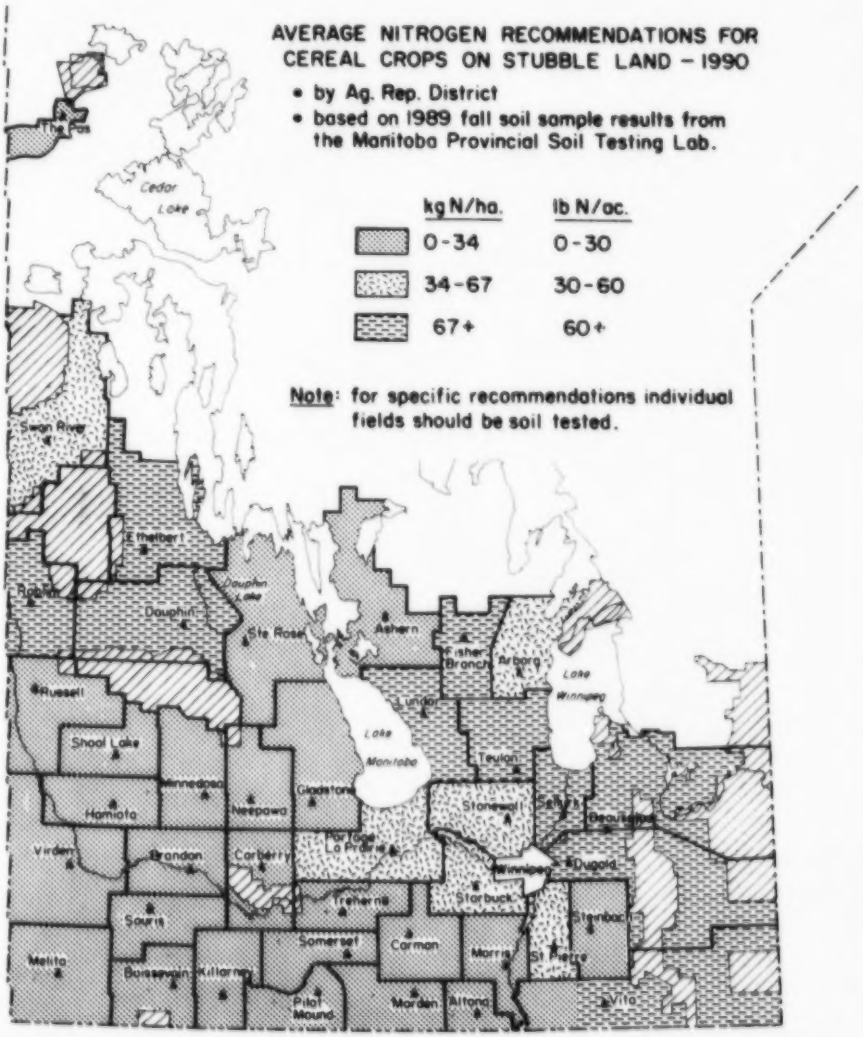
# CHANGES TO *THE 1988-90 FIELD CROP PRODUCTION GUIDE FOR MANITOBA*

**New information for the above publication can be found in the following pages.**

**PREMIERE FLOWABLE—Thiabendazole, thiram, lindane**

A dual purpose seed treatment for control of seedborne blackleg in canola, pre emergence damping off and seed decay of canola and mustard, and flea beetles. A registered product of ICI Chipman.

Deletion: Table 3 Page 16
Chlorothalonil is not registered for control of sclerotinia on canola.


AVERAGE NITROGEN RECOMMENDATIONS FOR CEREAL CROPS ON STUBBLE LAND – 1990
• by Ag. Rep. District
• based on 1989 fall soil sample results from the Manitoba Provincial Soil Testing Lab.
kg N/ha.
lb N/ac.
0-34
0-30
34-67
30-60
67+
60+
Note: for specific recommendations individual fields should be soil tested.
The Pas
Cedar Lake
Swan River
Ethelbert
Roblin
Dauphin
Dauphin Lake
Ste Rose
Ashern
Fisher Branch
Arborg
Lake Winnipeg
Russell
Lundar
Lake Manitoba
Shoal Lake
Teulon
Minnedosa
Gladstone
Neepawa
Stonewall
Selkirk
Beausejour
Hamiota
Virden
Brandon
Carberry
Portage La Prairie
Winnipeg
Dugald
Starbuck
Treherne
Souris
Somerset
Carman
Morris
St Pierre
Stanbach
Melita
Boissevain
Killarney
Pilot Mound
Morden
Altona
Vita